FORM PTO-1449 (REV. 6-89)	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	Attorney's Docket No. 19570-04683	Serial No. 09/759,624
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicant Eunjoo Hwang, et al.	
		Filing Date January 12, 2001	Group Art Unit 2631

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
✓	A	5,675,612	10/7/97	Solve et al.	375	326	
✓	B	5,581,585	12/3/96	Takatori et al.	375	376	
✓	C	4,995,031	2/19/91	Aly et al.	370	32.1	

FOREIGN PATENT DOCUMENTS

		Document Number	Date	Country	Class	Subclass	Translation Yes	No
✓	D	WO 98/39873	11.09.98	PCT				

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

✓	E	Ungerboeck, Gottfried, "Fractional Tap-Spacing Equalizer and Consequences for Clock Recovery in Data Modems", IEEE Transaction on Communications, Vol. COM-24, No. 8, August 1976, pp. 856-864

EXAMINER	DATE CONSIDERED 6/13/04

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PTO-1449
REV: 02/01

| Form 1449 (Modified)

**Information Disclosure
Statement By Applicant**

(Use Several Sheets if Necessary) | Docket No.
59472.8041.US01
Applicant:
HWANG et al.
Filing Date
January 12, 2001 | Application No.:
09/759,624

Group
2631 | COPY OF PAPERS
ORIGINALLY FILED |

JUN 1 1 2002

U.S. Patent Documents

Examiner Initial	No.	Patent No.	Date	Patentee	Class	Sub-Class	Filing Date
~~signature~~	A	3,697,689	10-10-72	Gibson			12-23-70
~~signature~~	~~B~~	~~4,995,031~~	~~2-19-91~~	~~Aly et al.~~			~~6-19-89~~

Foreign Patent or Published Foreign Patent Application

Examiner Initial	No.	Document No.	Publication Date	Country or Patent Office	Class	Sub-class	Translation Yes	No
	~~C~~	~~WO 98/39873~~	~~9-11-98~~	~~Europe~~			~~X~~	

Other Documents

Examiner Initial	No.	Author, Title, Date, Place (e.g. Journal) of Publication
	D	
	E	

Examiner	Date Considered
(signature)	6/13/04

Examiner: Initial citation considered. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

FORM PTO-1449 (REV. 6-89)	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	Attorney's Docket No. 19570-04683	Serial No. 09/759,624

INFORMATION DISCLOSURE CITATION

(Use several sheets if necessary)

Applicant	Eunjoo Hwang, et al.	
Filing Date January 12, 2001	Group Art Unit 2631	

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate
	A	3,697,680	10/10/72	Gibson	178	69.5	

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)
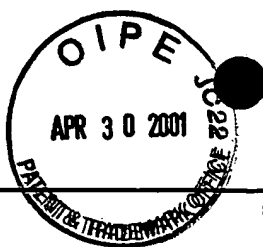
	B	Mueller, Kurt H., and Müller, Markus, "Timing Recovery in Digital Synchronous Data Receivers", IEEE Transactions on Communications, Vol. COM-24, No. 5, May 1976, pp. 516-531
	C	Belfiore, Carlos A., and Park, John H., Jr., "Decision Feedback Equalization", Proceedings of the IEEE, Vol. 67, No. 8, August 1979, pp. 1143-1156
	D	Gysel, Peter, and Gilg, Dietrich, "Timing Recovery in High Bit-Rate Transmission Systems Over Copper Pairs", IEEE Transactions on Communications, Vol. 46, No. 12, December 1998, pp. 1583-1586
	E	Kobayashi, H., "Simultaneous Adaptive Estimation and Decision Algorithm for Carrier Modulated Data Transmission Systems," IEEE Transactions on Communications, V. COM-19, No. 3, June 1971, pp. 268-280
	F	Gitlin, R.D., and Salz. J., "Timing Recovery in PAM Systems," The Bell System Technical Journal, V. 50, No. 5, May-June 1971, pp. 1645-1669
	G	Foschini, G.J., "Equalization Without Altering or Detecting Data", AT&T Technical Journal, Vol. 64, No. 8, October 1985, pp. 1885-1911

EXAMINER	DATE CONSIDERED 6/13/0-4

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PTO-1449
REV: 02/01

FORM PTO-1449 (REV. 6-89)	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	Attorney's Docket No. 19570-04683		Serial No. 09/759,624
INFORMATION DISCLOSURE CITATION		Applicant Eunjoo Hwang, et al.		
(Use several sheets if necessary)		Filing Date January 12, 2001	Group Art Unit 2631	

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	H	Bennett, W.R., "Statistics of Regenerative Digital Transmission", Bell Systems Technical Journal, Vol. 37, No. 1, November 1958, pp. 1501-1542
	I	Franks, L. E., and Bubrouski, J. P., "Statistical Properties of Timing Jitter in a PAM Timing Recovery System," IEEE Transactions on Communications, Vol. COM-22, No. 7, July 1974, pp. 913-920
	J	Insight – COSSAP, "Design Synchronization Subsystems in COSSAP", copyright 2001 [online] [retrieved on 2001-04-13], Retrieved from the internet <URL: http://www.synopsys.com/products/dsp/insight/COSSAP_sync_app.html>, pp. 1-2
	K	Insight – COSSAP, "General Concepts", copyright 2001 [online] [retrieved on 2001-04-13], Retrieved from the internet <URL: http://www.synopsys.com/products/dsp/insight/COSSAP_sync_app2.html>, pp. 1-3
	L	Insight – COSSAP, "COSSAP Library Blocks for PLL Modeling", copyright 2001 [online] [retrieved on 2001-04-13], Retrieved from the internet <URL: http://www.synopsys.com/products/dsp/insight/COSSAP_sync_app3.html>, pp. 1-4
	M	Insight – COSSAP, "Examples", copyright 2001 [online] [retrieved on 2001-04-13], Retrieved from the internet <URL: http://www.synopsys.com/products/dsp/insight/COSSAP_sync_app4.html>, pp. 1-5

EXAMINER	DATE CONSIDERED 6/13/0-4

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PTO-1449
REV: 02/01

FORM PTO-1449 (REV. 6-89)	U.S. DEPARTMENT OF COMMERCE Patent and Trademark Office	Attorney's Docket No. 19570-04683	Serial No. 09/759,624
INFORMATION DISCLOSURE CITATION (Use several sheets if necessary)		Applicant Eunjoo Hwang, et al.	
		Filing Date January 12, 2001	Group Art Unit 2631

APR 3 0 2001

U.S. PATENT DOCUMENTS

Examiner Initial		Document Number	Date	Name	Class	Subclass	Filing Date If Appropriate

FOREIGN PATENT DOCUMENTS

	Document Number	Date	Country	Class	Subclass	Translation Yes	No

OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)

	N	Insight – COSSAP, "Conclusions", copyright 2001 [online] [retrieved on 2001-04-13], Retrieved from the internet <URL: http://www.synopsys.com/products/dsp/insight/COSSAP_sync_app5.html>, pp. 1-3
	O	Takasaki, Yoshitaka, "Timing Extraction in Baseband Pulse Transmission", IEEE Transactions on Communications, Vol. COM-20, No. 5, October 1972, pp. 877-884
	P	Saltzberg, Burton R., "Timing Recovery for Synchronous Binary Data Transmission", Bell System Technical Journal, Vol. 46, March 1967, pp. 593-622
	Q	Lee, Edward A., and Messerschmitt, David G., Digital Communications, Second Edition, Kluwer Academic Publishers, 1994, pp. 748-764
	R	"Supplement to Carrier Sense Multiple Access With Collision Detection (CSMA/CD) Access Method and Physical Layer Specificaitons -- Physical Layer Parameters and Specifications for 1000 Mb/s Operation Over 4-Pair of Category 5 Balanced Copper Cabling, Type 1000-BASE-T", IEEE Std 802.3ab, 1999 (Supplement to IEEE Std. 802.3, 1998 Edition), pp. 1-104
	S	Meyr, Heinrich, and Ascheid, Gerd, "Phase-, Frequency-Locked Loops, and Amplitude Control", Synchronization in Digital Communications, Volume 1, Wiley Series in Telecommunications, 1990, pp. 21-35 and 97

EXAMINER	DATE CONSIDERED 6/13/04

EXAMINER: Initial if references considered, whether or not citation is in conformance with MPEP § 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

PTO-1449
REV: 02/01